

We claim,

1. A sliding glass door system comprising:

(a) a door frame to be positioned in a structure opening, said door frame
5 comprising a sliding door panel roller track extending along a bottom portion, and a
sliding door panel sliding track extending along a top portion, said sliding door panel
roller and sliding tracks being positioned at an exterior side of said door frame;

(b) at least one fixed door panel, said fixed door panel comprising a fixed
door sash, and a glass panel carried in said fixed door sash, said fixed door panel
10 being positioned at an interior side of said door frame;

(c) at least one sliding door panel slidably positioned between said sliding
door panel roller and sliding tracks, said sliding door panel comprising a sliding door
sash and a glass panel carried in said sliding door sash, sliding door rollers
extending outwardly from a bottom of said sliding door sash and engaging said
15 sliding door panel roller track; and wherein said sliding door panel has a pair of
sliding door sealing brackets on an internal side of said sliding door sash, extending
horizontally along a top and a bottom portion of said sliding door sash; and.

(d) a bottom sealing block and a top sealing block horizontally aligned
between said fixed door panel and an opposing side portion of said door frame for a
20 two panel door system, or between two said fixed door panels for a three or four
panel door system, and adjacent to said sliding door panel tracks; wherein each of
said sealing blocks has a resilient block external sealing rim attached to an external
wall of said sealing blocks, extending horizontally along said sealing blocks; and

wherein when said sliding door panel is in a closed position, said sliding door sealing brackets are in direct contacts with said block external sealing rims along said top and bottom sealing blocks to provide air sealing between said sliding door sash and said sealing blocks.

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2. The sliding glass door system of Claim 1, wherein said sliding door sealing brackets protrude from said sliding door sash.

3. The sliding glass door system of Claim 1, wherein said bottom portion
10 of said door frame comprises a bottom base section connected perpendicularly to a bottom side section; said bottom portion has a first and a second bottom frame anchor means thereon.

4. The sliding glass door system of Claim 3, wherein said bottom sealing
15 block has a first and a second bottom block anchor means complementary to said first and second bottom frame anchor means, respectively, for interlocking said bottom sealing block with said bottom portion of said door frame.

5. The sliding glass door system of Claim 4, wherein said bottom sealing
20 block is snapped on to said bottom portion of said door frame, by interlocking said first and second bottom block anchor means with said first and second bottom frame anchor means, respectively.

6. The sliding glass door system of Claim 5, wherein there is a resilient bottom frame sealing rim attached to an inner side of said bottom side section of said door frame, extending horizontally along said bottom side section; and an internal wall of said bottom sealing block is in direct contact with said bottom frame sealing rim to provide an additional sealing of said door system.

7. The sliding glass door system of Claim 5, wherein said fixed door panel further comprises a fixed door panel anchoring means complementary to said first bottom frame anchor means for interlocking said fixed door panel with said bottom portion of said door frame.

8. The sliding glass door system of Claim 7, wherein said fixed door panel further comprises a bottom fixed door sealing bracket on an internal side of said fixed door sash, extending horizontally along a bottom portion of said fixed door sash; and wherein said bottom fixed door sealing bracket is in direct contact with said bottom frame sealing rim of said bottom portion of said door frame to provide an additional sealing of said door system.

9. The sliding glass door system of Claim 8, wherein said bottom fixed door sealing bracket protrudes from said fixed door sash.

10. The sliding glass door system of Claim 5, wherein said bottom sealing block further comprises a resilient bottom block internal sealing rim attached to an

internal wall thereof, extending horizontally along said bottom sealing block; and said bottom block internal sealing rim is in direct contact with said bottom side section of said door frame to provide an additional sealing of said door system.

5 11. The sliding glass door system of Claim 10, wherein said fixed door panel further comprises a bottom fixed door sealing bracket on an internal side of said fixed door sash, extending horizontally along a bottom portion of said fixed door sash, and has a bottom fixed door sealing rim attached to said sealing bracket; wherein said bottom fixed door sealing rim is in direct contact with said bottom side
10 section of said bottom portion of said door frame to provide an additional sealing of said door system.

 12. The sliding glass door system of Claim 5, wherein said bottom sealing block covers mounting screws on said bottom portion of said door frame.

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 13. The sliding glass door system of Claim 5, wherein said bottom sealing block further comprises a plurality of grooves on a top thereof to provide a non-slippery walking surface.

20 14. The sliding glass door system of Claim 5, wherein said top portion of said door frame has a top base section connected perpendicularly to an interior section, a middle section and an exterior section; and said top portion has a first and a second top frame anchor means thereon.

15. The sliding glass door system of Claim 14, wherein said top sealing block has a first and a second top block anchor means complementary to said first and second top frame anchor means, respectively, for interlocking said top sealing
5 block with said top portion of said door frame.

16. The sliding glass door system of Claim 15, wherein said top sealing block is snapped on to said top portion of said door frame, by interlocking said first and second top block anchor means with said first and second top frame anchor
10 means, respectively.

17. The sliding glass door system of Claim 16, wherein said top sealing block further comprises a resilient top block internal sealing rim attached to an internal wall thereof, extending horizontally along said top sealing block; and said
15 top block internal sealing rim is in direct contact with an inner side of said interior section of said top portion to provide an additional sealing of said door system.

18. The sliding glass door system of Claim 17, wherein said fixed door panel further comprises a first top fixed door sealing bracket on an internal side of
20 said fixed door sash, extending horizontally along a top portion of said fixed door sash, and a first top fixed door sealing rim attached to said top fixed door sealing bracket; wherein said top fixed door sealing rim is in direct contact with said internal section of said top portion of said door frame to provide an additional sealing of said

door system.

19. The sliding glass door system of Claim 18, wherein said fixed door panel further comprises a second top fixed door sealing bracket on an external side of said fixed door sash, extending horizontally along a top portion of said fixed door sash, and a second top fixed door sealing rim attached to said second top fixed door sealing bracket; wherein said second top fixed door sealing rim is in direct contact with said middle section of said top portion of said door frame to provide an additional sealing of said door system.

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20. The sliding glass door system of Claim 16, wherein there is a resilient top frame sealing rim attached to an inner side of said interior section of said top portion, extending horizontally along said interior section; and an internal wall of said top sealing block is in direct contact with said top frame sealing rim to provide an additional sealing of said door system.

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21. The sliding glass door system of Claim 20, wherein said fixed door panel further comprises a top fixed door sealing bracket on an internal side of said fixed door sash, extending horizontally along a top portion of said fixed door sash; and wherein said top fixed door sealing bracket is in direct contact with said top frame sealing rim of said top portion of said door frame to provide an additional sealing of said door system.

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22. The sliding glass door system of Claim 16, wherein said top sealing block covers mounting screws on said top portion of said door frame.

23. The sliding glass door system of Claim 16, wherein each of side portions of said door frame has an indent portion and a protruding portion, said indent portion being at said interior side and said protruding portion being at said exterior side of said door frame; and said each side portion is mounted to said structure opening by mounting screws vertically along said indent portion; and wherein upon installation, said fixed door panel is inserted into said indent portion of one side portion, thereby blocking mounting screws from an user's view.

24. The sliding glass door system of Claim 23, wherein said door frame further comprises a pair of side sealing plates, each being attached to a lower end of a peripheral side of said each side portion of said door frame.

25. The sliding glass door system of Claim 24, wherein said side sealing plates have a height from about 4 to about 8 inches.

26. The sliding glass door system of Claim 16 further comprising one or more sill track block, said sill track block being attached to said bottom portion of said door frame external of said sliding door panel roller track, and positioned along a vertical fixed door sash which towards a center of said door frame; wherein said sill track block prevents said sliding door panel from being blown out from said door

frame by a strong wind.

27. A sliding glass door system comprising:

(a) a door frame to be positioned in a structure opening, said door frame
5 comprising a sliding door panel roller track extending along a bottom portion, a
sliding door panel sliding track extending along a top portion, said sliding door panel
roller and sliding tracks being positioned at an exterior side of said door frame; and
a pair of sliding screen panel tracks positioned at the most interior side of said door
frame extending along said bottom and top portion;

10 (b) at least one fixed door panel, said fixed door panel comprising a fixed
door sash, and a glass panel carried in said fixed door sash, said fixed door panel
being positioned at an interior side of said door frame between said sliding door
panel tracks and said sliding screen panel tracks;

(c) at least one sliding door panel slidably positioned between said sliding
15 door panel roller and sliding tracks, said sliding door panel comprising a sliding door
sash and a glass panel carried in said sliding door sash, sliding door rollers
extending outwardly from a bottom of said sliding door sash and engaging said
sliding door panel roller track; and wherein said sliding door panel has a pair of
sliding door sealing brackets on an internal side of said sliding door sash, extending
20 horizontally along a top and a bottom portion of said sliding door sash; and.

(d) a sliding screen panel slidably positioned between said pair of sliding
screen panel tracks in said door frame, said sliding screen panel comprising a
sliding screen sash, a screen panel carried in said sliding screen sash and sliding

screen rollers.

28. The sliding door system of Claim 27 further comprising a bottom sealing block and a top sealing block horizontally aligned between said fixed door
5 panel and an opposing side portion of said door frame for a two panel door system, or between two said fixed door panels for a three or four panel door system, and adjacent to said sliding door panel tracks; wherein each of said sealing blocks has a resilient block external sealing rim attached to an external wall of said sealing blocks, extending horizontally along said sealing blocks; and

10 wherein when said sliding door panel is in a closed position, said sliding door sealing brackets are in direct contacts with said block external sealing rims along said top and bottom sealing blocks to provide air sealing between said sliding door sash and said sealing blocks.